

**Abstract**

A segment for a rotary disk refiner that has a refining surface offset to compensate for deflection of the segment that occurs during refiner operation. In one preferred embodiment, the refining surface overlying each segment overhang is offset to compensate for deflection that occurs in the region of the overhang during refiner operation. Other regions of the refining surface can also be offset to compensate for deflection. In another preferred embodiment, a mount that extends outwardly from the backside of a segment has a hollow therein to reduce segment mass to reduce refining surface deflection. In a method of making a deflection compensating segment, the location and magnitude of each region of deflection is analytically or experimentally determined and the refining surface is formed with a corresponding offset in each deflection region.